slightly shorter than pronotum, with a rather long semierect spine a little behind the base of each antenna; first joint of rostrum distinctly longer than the second; first joint of antennæ stramineous, about as long as anterior femora, remaining joints mutilated; pronotum elongate, finely transversely constricted before middle, the posterior lobe finely granulate, posterior lateral angles longly, spinously, laterally produced; corium a little darker in hue and finely greyishly pilose; membrane bronzy; abdomen moderately angularly dilated on each side at the junction of the fifth and sixth segments; legs somewhat longly pilose.

Long. 13½ mm.

XLI.—*The Collections of William John Burchell, D.C.L., in the Hope Department, Oxford University Museum.*

IV. *On the Lepidoptera Rhopalocera collected by W. J. Burchell in Brazil*, 1825–1830. By Cora B. Sanders, of Lady Margaret Hall, Oxford.

[Concluded from p. 323.]

II. *Danainæ.*

Anosia erippus, Cram.

Bz. 122. I. 15. 8. 25. ♂ = **140.** Rio de Janeiro. "In a cross-lane about halfway between the Gloria Hill and Botafogo Bay. All found on plants." "*Papilio.*"
10. 1. 26. ♂ = **141.** Rio de Janeiro. Práia Gránde and S. João de Carahý.
27. 1. 26. ♀ = **142.** Rio de Janeiro.
31. 1. 26. ♂ = **143.** Rio de Janeiro. (As **66.**)
26. 2. 26. 2 ♂ = **144, 145.** Near Fréchal and the Rio Magé. Brazilian date and later copy on **145.**
1. 3. 26. 2 ♀ = **146, 147.** (As **121.**) Brazilian date and later copy on **147.**
13. 3. 26. ♂ = **148.** Rio de Janeiro. "From Magé. A.[M.]."
13. 3. 26. ♀ = **149.** Rio de Janeiro. "A.[M.]."
1. 4. 26. ♂ = **150.** Rio de Janeiro. "In the Valley of Catumbi."
3. 4. 26. ♀ = **151.** Rio de Janeiro. "Along the Carioca Aqueduct."
23. 9. 26. 2 ♂ = **152, 153.** Santos.

Bz. 3. 11. 26. ♂ = **154.** Santos. "On Monserrat."

12. 11. 26. ♀ = **155.** Santos. "In the Forest above the Monastery of São Bento."

14. 6. 29. ♂ = **156.** Pará.

16. 6. 29. 2 ♂ = **157, 158.** Pará. Brazilian date and later copy on **157.**

23. 6. 29. ♀ = **159.** Pará.

4. 7. 29. ♂ = **160.** ,,

11. 7. 29. ♂ = **161.** ,,

1397.+ 14. 7. 29. ♂ = **162.** Pará.

Bz. 1397.+ 14. 7. 29. = **162** A. Pará. A ♂ Danaine pupa-case from which the butterfly had emerged. Obviously the pupa of **162.**

23. 7. 29.
1397.
1398.
14. 7. 29.
} Both dates and both numbers written thus on one label. } = **162** B, **162** C. Pará.

Two ♀ Danaine pupæ which had died. The species is probably the same as **162** A. Both are much gnawed, perhaps by parasites, perhaps at a later date by *Anthreni.* Both pupæ on a single pin, which bears an original Brazilian label with the number *1397* in addition to the later label with the two numbers and the two dates.

8. 8. 29. ♀ = **163.** Pará.

The remaining lists in this paper were not in Westwood's handwriting.

The dates agree, except that the former existence of four or, perhaps, five additional specimens is indicated; another with the data of **149**, another with those of **159**, a specimen with the number *131*, captured on 16. 8. 25 (Rio. "Above the Theresa Convent; and on the woody hill [or hills] along the Aqueduct"), and one captured on 30. 10. 25 (Minas Geraës. "In the forest. On the N.E. side of the arraial of São João de Něpomucéna.") The date 5. 7. 29 follows 4. 7. 29 in the list without the usual intervening mark which indicates a separate individual. Its insertion may be merely a copyist's error. If, however, this is not the case, the additional specimen was captured at Pará. The only name given in the list is *Danais.*

Beyond this point no reference to sex indicates that no determination is given in the list.

Tasitia gilippus, Cram.

Bz. 110. II. 15. 8. 25. ♀ = **164.** Rio de Janeiro. (As **140.**)

Bz. 900. I.+ 25. 10. 25. ♂ = **165.** Minas Geraes. (As **37, 38.**)

31. 12. 25. ♂ = **166.** Rio de Janeiro. "Excursion to the Summit of the Corcovado; from Catéte and up the valley of Laranjeiros."
26. 1. 26. ♂ = **167.** Rio de Janeiro. "In a botanical and entomological excursion to the Barra Vermelha, Morro de Ladeira and Catombi."
27. 1. 26. ♀ = **168.** Rio de Janeiro.
1. 3. 26. ♂ = **169.** Magé. (As **121.**)
7. 3. 26. ♀ = **170.** Rio de Janeiro. "At Catombí."
9. 3. 26. ♀ = **171.** ,, ,,
13. 3. 26. ♀ = **172.** ,, ,, "A.[M.]."
24. 12. 26. ♀ = **173.** Cubatão. "At Rio das Pedras and Cubatão."
20. 8. 27. ♀ = **174.** N.W. of Mogy Mirim. "Urisánga to Itupéba."
Bz. 3. 12. 28. ♀ = **175.** Porto Real [Nacional].
29. 1. 29. 2 ♂ = **176, 177.** Porto Real [Nacional].
Bz. 1309.+ 11. 2. 29. ♂ = **178.** Porto Real [Nacional]. "*Papilio.* The flight of this is remarkable, for it does not always hover by a constant motion of wings, but frequently sails with wings half extended, without moving them at all; nor is it very visible by what movement it sails along."
27. 2. 29. ♀ = **179.** Porto Real [Nacional].
17. 3. 29. 2 ♂ = **180, 181.** ,, ,,
22. 3. 29. 2 ♂ = **182, 183.** ,, ,, Brazilian date and later copy on **182.**
Bz.+ 23. 3. 29. ♀ = **184.** ,, ,,
24. 3. 29. ♂ = **185.** ,, ,, "Mánga."
28. 3. 29. 2 ♂ = **186, 187.** ,, ,, Brazilian date and later copy on **187.**

The dates in Westwood's list agree, except that the former existence of three additional specimens is shown, viz. another of the same date as **164**, another with the date of **180, 181**, and a specimen captured 2. 3. 29 (Porto Real = Nacional). The fact that Burchell captured two specimens on 15. 8. 25 is also shown by his note-book. The only name given is *Danais.*

[I was extremely interested to read Burchell's note on specimen no. **178**, inasmuch as it exactly describes a common mode of flight in the allied Danaine *Anosia plexippus*. I was much struck with it in the Northern United States in the summer of 1897, for I had never seen a butterfly sail in the same manner before. The appearance produced by the half-extended wings was singularly boat-like, the resemblance being much increased by a continual oscillation from side to side, like the roll of a vessel. The underside of these Danainæ is even more conspicuous than the upperside, and it occurred to me that the significance of the peculiar attitude and movement was to display the underside during flight. The method adopted is probably the only means by which this end could be achieved.—E. B. P.]

Lycorea halia, Hew.

10. 11. 25. = **188.** Minas Geraes.
31. 12. 25. = **189.** Rio de Janeiro. (As **166.**)
Bz.+ 1. 3. 26. = **190.** Magé. (As **121.**)
Bz. 10. 3. 26. = **191.** Rio de Janeiro.
Bz. 19. 3. 26. = **192.** ,, "In the Valley of Catombí."
1. 4. 26. = **193.** ,, "In the Valley of Catumbi."
30. 10. 27. = **194.** E. of Goyaz. On road from Meia Ponte. "Conceicão."
24. 12. 27. ♂ = **195.** Goyaz.

Name and dates agree with Westwood's list, except that he refers to a ninth specimen captured on 8. 2. 26, "Organ Mountains (in a ride to the Cattle Pounds and the Milho Roça)."

[These specimens may afford a deeply interesting instance of change in something under three quarters of a century, or, on the other hand, the results may be merely due to a deepening in the tint of a yellowish pigment owing to age.

Lycorea halia is an outlying member of Blandford's Group 3, "East Brazilian Type," Division (*a*), having "the apical spots on the fore wing yellow." This important group was shown by Mr. W. F. H. Blandford to the Entomological Society in 1897 (see Proc. Ent. Soc. Lond., May 5, 1897). It is mainly characterized by a bright yellow horizontal band traversing the hind wing parallel with the inner margin of the fore wing. The *Lycorea*, being an outlying member of the group, has a pale yellowish band, which is very different from the bright tint of the more centrally placed members, such as the species of *Heliconius*. Now Burchell's specimens are far more removed from the group than those of recent date, inasmuch as the band is but slightly paler than the tawny ground-colour of the wing. In favour of the view that a change has actually occurred and is here registered are the following facts:—(1) the specimens are, as a whole, singularly perfect; (2) one specimen is lighter than the rest, its band being of a shade common in recent specimens; (3) the yellow band, the characteristic feature of the group, is a very special and peculiar one among the numerous patterns and colour combinations of Neotropical synaposematic groups; (4) that a butterfly which is outlying to-day should be still more outlying seventy-five years ago is not surprising. Rapid change is more probable in a case of this kind than perhaps in any other. On the other side it must be remembered:—(1) that the yellow tints of some butterflies are very apt to darken; (2) that similar dark forms of *Lycorea halia* are to be found in collections of much less age, or even occasionally in recent consignments.

The latter argument, of course, supports both sides of the case.

It is not too much to hope that the question may be settled by intentional exposure or other experiments upon the yellow pigment of recent specimens, as well as by the investigation of all available material.

Miss Sanders and I have already carefully compared the Burchell specimens with the series at Oxford, in the British Museum, and in the Godman-Salvin Collection, and there can be no doubt about the existence of a marked difference between the bands of the Burchell specimens as a whole and those of more recently captured individuals of *L. halia*.

When in the later pages of this memoir the Heliconiinæ belonging to the same group are recorded, it will be convenient to reproduce typical examples of as many members as possible by the best photographic processes which we can command. I think that the differences of shade can be accurately rendered in this manner and made available in a half-tone plate.—E. B. P.]

Ituna ilione, Cram.

Bz. 12. 11. 26. = **196.** Santos. "Forest by S. Bento." Date and name as in Westwood's list.

III. SATYRINÆ.

Pierella lamia, Sulz.

13. 5. 29. 2 ♂ = **197, 198.** Rio Tocantins, Carolina. "Boa Vista in Sylva densa" on **197.** There are two Brazilian labels on **198**: "Sylva densa" on one, "13. 5. 29 Boa Esper" on the other.

Date as in Westwood's list, where, however, only one specimen is mentioned. **198**, a very poor specimen, was found among duplicates and recognized by Burchell's handwriting on the label. The printed "Burchell Collection" label affixed to the specimens at Oxford was wanting.

When the name is not referred to, it is to be understood that none is given in Westwood's list.

Pierella nereis, Drury.

14. 1. 26. ♀ = **199.** Rio de Janeiro. (As **29.**)
14. 2. 26. ♀ = **200.** Organ Mountains. Near R. Pacaqué.
Dates as in Westwood's list.

Pierella astyoche, Erich.

7. 8. 29. ♀ = **201.** Pará.
Date as in Westwood's list.

Pierella lena, Linn.

Bz.+ 19. 5. 29. ♀ = **202.** Descent of Rio Tocantins. Rio Araguay.
Date as in Westwood's list.

Pierella dracontis, Hübn.

Bz.+ 24. 7. 29. ♀ = **203.** Pará.
4. 12. 29. ♂ = **204.** Pará, S. José.
Dates as in Westwood's list.

Anchiphlebia archœa, Hübn.

12. 3. 26. ♂ = **205.** Rio de Janeiro. "Carioca Aqueduct."

Westwood's list includes another specimen captured on 22. 3. 26 (Rio. "Along the Aqueduct to the head of the Valley of Laranjeiros").

Euptychia ocirrhoe, Fabr.

Bz. 190. I. 8. 9. 25. ♀ = **206.** Rio de Janeiro. "Along the Aqueduct. *Papilio.*"
31. 12. 25. ♂ = **207.** Rio de Janeiro. (As **166.**)
Bz.+ 7. 3. 26. ♂ = **208.** Rio de Janeiro. "At Catombí."
9. 3. 26. 2 ♂ = **209, 210,** ♀ = **211.** Rio de Janeiro. Brazilian date on **209.**
10. 3. 26. ♂ = **212.** Rio de Janeiro.
12. 3. 26. ♀ = **213.** ,, "Carioca Aqueduct."
15. 3. 26. ♂ = **214.** ,, "Catombi. In plantis."
16. 3. 26. ♂ = **215.** ,, "In the upper part

of the Valley of Catombi, and along the road thence to Rio Comprido and Matto Porcos."

17. 3. 26. 2 ♂ = **216, 217.** Rio de Janeiro. "Along the Carioca Aqueduct, and descending the high hill mentioned (31. 1. 26) into the valley of Catombi. But they were mostly along the Aqueduct, and only a few on the hill." Brazilian date on **217.**

18. 3. 26. ♀ = **218.** Rio de Janeiro. Along the Carioca Aqueduct.

Bz. 20. 3. 26. ♀ = **219.** Rio de Janeiro. Along the Carioca Aqueduct.

Bz. 21. 3. 26. 2 ♂ ♀ = **220, 221.** Rio de Janeiro. Along the Carioca Aqueduct.

22. 3. 26. ♂ = **222.** Rio de Janeiro. Along the Carioca Aqueduct.

1. 4. 26. ♂ = **223.** Rio de Janeiro. (As **193.**)

19. 5. 29. 2 ♂ ♀ = **224, 225.** R. Tocantins. (As **202.**)

7. 6. 29. ♀ = **226.** R. Tocantins. Near Pará. "Sta. Anna."

1. 8. 29. ♂ = **227.** Pará.

18. 9. 29. ♂ = **228.** Pará, S. José. "In umbrosis Silvæ."

24. 10. 29. ♂ = **229.** „ „ "In Sylva."

15. 11. 29. ♂ = **230.** „ „ "Caminho de Chamónte."

Bz. 5. 1. 30. ♂ = **231.** Pará.

All the twenty-six specimens here recorded agree with Westwood's list, but the latter also contains thirteen individuals which cannot now be found. Of these, five were captured on dates unrepresented by existing specimens, viz.:—one taken 7. 11. 25 towards the end of the expedition into Minas Geraes, three taken at Rio on 13. 3. 26, 19. 3. 26, 3. 4. 26, and one taken at Goyaz (Caminho de Carreira) on 10. 4. 28 respectively. The remaining eight specimens are made up as follows:—One more individual captured on 7. 3. 26, one more (viz. No. *1056*) on 17. 3. 26, two more on 9. 3. 26, one more on 16. 3. 26, one more on 18. 3. 26, two more on 20. 3. 26.

Although unnamed in the list, specimen **227** bears a label with the name "*Euptychia ocirrhoe*" written by Westwood.

Euptychia mollina, Hübn.

1. 8. 29. 2 ♀ = **232, 233.** Pará. Brazilian date and later copy on **233.**

4. 8. 29. ♀ = **234.** Pará.

5. 8. 29. ♀ = **235.** „

8. 8. 29. ♀ = **236.** Pará.

Bz. 15. 11. 29. 2 ♀ = **237, 238.** Pará. (As **230.**)

Westwood's list agrees, except that it mentions three additional individuals captured at Pará,—one on 4. 7. 29 and two on 4. 12. 29. The name given is *Neonympha mollina.*

Euptychia herse, Cram.

Bz. + 23. 7. 29. ♂ = **239.** Pará. "Between my house and the city."

Westwood's list agrees.

Euptychia chloris, Cram.

31. 5. 29. ♂ = **240.** R. Tocantins, near Pará. "Baião; P. [M.]."

Westwood's list agrees.

Euptychia cosmophila, Hübn.

20. 3. 26. = **241.** Rio de Janeiro. Along the Carioca Aqueduct.

This specimen was submitted to Dr. F. D. Godman, who confirmed the identification.

Westwood's list agrees.

Euptychia cluena, Drury.

10. 3. 26. 2 = **242, 243.** Rio de Janeiro.

1055. II. 17. 3. 26. 2 = **244, 245.** Rio de Janeiro. (As **216, 217.**) "Both these caught in deep woods, as the preceding." The latter refers to **351**, and indicates capture "in the forest down the hill."

18. 3. 26. 2 = **246, 247.** Rio de Janeiro. Along the Carioca Aqueduct. Brazilian date on **246.**

20. 3. 26. 3 = **248–250.** Rio de Janeiro. Along the Carioca Aqueduct. Brazilian date on **248.**

3. 4. 26. = **251.** Rio de Janeiro. Along the Carioca Aqueduct.

245 is probably the only female.

Westwood's list agrees, except that the date 10. 2. 26 is substituted for 10. 3. 26. This is almost certainly a mistake of the copyist. It may be mentioned, however, that on the former date Burchell was in the Organ Mountains.

Euptychia myncea, Cram.

10. 8. 29. = **252.** Pará.

30. 11. 29. = **253.** Pará, S. José.

Euptychia penelope, Fabr.,=*clarissa*, Cram.

Bz. 1332.+ 2. 3. 29. = **254.** Porto Real [Nacional]. "*Papilio.* In woody places among the bushes. This and its congeners fly in a very hovering zigzag manner low among the bushes and herbage."
Bz. 15. 3. 29. = **255.** Porto Real [Nacional].
7. 6. 29. = **256.** R. Tocantins. (As **226.**)
27. 7. 29. = **257.** Pará.
15. 11. 29. = **258.** Pará, S. José. (As **230.**)

It is probable that the individuals of *myncea* and *penelope* are considered together in Westwood's list. The dates here recorded agree, except that 10. 8. 29 (**252**) is replaced by 10. 2. 29, probably a clerical error. The list furthermore includes individuals captured on 29. 12. 28 (Porto Real) and 18. 6. 29 (Pará).

Euptychia sp.

28. 5. 28. 2 ♂ = **259** (Pl. VI. fig. 8), **260.** Goyaz. "Peak near Cánta Gállo." "In summitate montis." Burchell's label, written in England, is reproduced to the right of and below figure 8.

These specimens were submitted to Dr. F. D. Godman, who is unable to name them. Mr. F. A. Heron considers that the markings best agree with *E. similis* (Butl.), but he points out that the eyes of the latter are hairy, while those of **259, 260** are naked. In the character of the distal end of the cell of the fore wing these specimens also best agree with *similis* and its allies. The marked development of the ocelli on both wings is peculiar, together with the extent to which they appear on the upper surface. The fore wing is especially remarkable in these respects. The species is almost certainly new and both striking and distinct; but the specimens are unfortunately in such poor condition that it is impossible to make either of them types. As the locality and time of year are precise, it is to be hoped that some naturalist in Brazil will capture examples which may be described, and named after the great traveller and observer.

Westwood's list agrees.

Euptychia electra, Butl.

Bz. 1306.+ 8. 2. 29. 2 = **261** (Pl. VI. fig. 9, showing underside), **262** (fig. 10). Porto Real [Nacional]. "Boracão."

"This genus is entirely sylvan, and delights to hover low among the herbage and thicker foliage. This was caught in the Carasco, or thicker campo-woods ; and another afterwards caught in the back yard."

The two labels affixed to each specimen are reproduced on the Plate to the right side of the respective figures. The lower number, written less carefully and with thicker lines, is in each case an original Brazilian label. The upper number and date, written by Burchell after his return, are upon a separate piece of paper, although the overlapping upper edge of the older label is in each case invisible.

Bz. 10. 2. 29. = **263.** Porto Real [Nacional].

These three specimens were submitted to Dr. F. D. Godman, who writes (Feb. 27, 1904) :—"Your specimens, which exactly resemble six I have from Chapada, have the four ocelli on the hind margin of the underside of the fore wings strongly marked, whereas in Butler's type [of *electra*], which is from Bahia, they are obsolete; but I have specimens showing all intermediate gradations from Brazil. These ocelli in the Satyridæ generally vary much both in size and distinctness, and are not a very good character for distinguishing a species."

The ocelli mentioned by Dr. Godman are well seen in fig. 9 of the accompanying Plate VI.

Westwood's list agrees.

Euptychia armilla, Butl.

8. 11. 28. 6 = **264–269.** Near Porto Real [Nacional]. "Corrego Raiz." Brazilian dates on **266**, **268**, and **269.**

No data. = **270.**

These specimens were kindly named for us by Dr. F. D. Godman, F.R.S.

Agrees with Westwood's list, except that the latter includes a seventh individual captured 8. 11. 28, a second without data, and an individual captured 10. 2. 29 (Porto Reál).

Euptychia liturata, Butl.

26. 9. 26. = **271.** Santos. "In a walk to the Chapel on Montserrát."

Bz. 30. 8. 28. = **272.** Near Jaragua. "Estiva."

1250. + 11. 9. 28. 2 = **273, 274.** Between Jaragua and Cavalcanti. "Trahíras, R. Vendinha." "*Papilio.* Flying low among grass in woods or margin of woods, in considerable numbers. They have the same habits and hovering mode of flight as their congeners at the Cape of Good Hope." Brazilian label and later copy on **274.**

These specimens were also named for us by Dr. F. D. Godman.

Westwood's list probably agrees, except that an additional ndividual captured 11. 9. 28 is mentioned. Another individual, captured 26. 11. 26, is probably **297**, accidentally associated with *liturata* instead of *camerta*.

Euptychia acmenis, Hübn.

10. 3. 26. 2 = **275, 276.** Rio de Janeiro. Along the Carioca Aqueduct.

18. 3. 26. 2 = **277, 278.** Rio de Janeiro. Along the Carioca Aqueduct. Brazilian date on **278.**

21. 3. 26. = **279.** Rio de Janeiro. Along the Carioca Aqueduct.

3. 4. 26. = **280.** Rio de Janeiro. Along the Carioca Aqueduct.

Westwood's list agrees.

Euptychia camerta, Cram.

Bz. 350. II. 15. 10. 25. 2 = **281, 282.** Minas Geraes. "At the Discoberto do Antonio Velho; *P*[*apilio*]."

Bz. 470. I. 16. 10. 25. = **283.** Minas Geraes. Discoberto. "*Papilio.*"

Bz. 829. I.+ 23. 10. 25. = **284.** Minas Geraes. Discoberto. "*Pap*[*ilio*]."

914. II. 25. 10. 25. 2 = **285, 286.** Minas Geraes. "*P*[*apilio*]. At Discoberto, near João Pedro's house." Brazilian label and later copy on **285.**

Bz. 1002. I.+ 27. 10. 25. = **287.** Minas Geraes. "At São João de Nepomucena and on the road from Discoberto. *Pap*[*ilio*]."

28. 10. 25. 2 = **288, 289.** Minas Geraes. (As **72.**)

4. 11. 25. 3 = **290–292.** „ (As **19.**)

Bz.+ 6. 11. 25. = **293.** Minas Geraes. "At Capitão Leite's." Near Nepomucena.

9. 2. 26. = **294.** Organ Mountains. "By the River Pacaqué."

Bz. 17. 3. 26. = **295.** Rio de Janeiro. (As **216, 217.**)

Bz. 20. 3. 26. = **296.** „ Along the Carioca Aqueduct.

26. 11. 26. = **297.** Santos. (As **8.**)

7. 3. 27. 3 = **298–300.** Near S. Paulo. "Morumby. Walk to Porto." "In Silva" on **299**, "Sylva" and date on Brazilian label on **300.**

21. 3. 27. = **301.** Near S. Paulo. "On Road W. beyond Práça da Aleyria."
8. 4. 27. = **302.** Near S. Paulo.
23. 4. 27. = **303.** „ „
10. 5. 27. 2 = **304, 305.** Near S. Paulo. "About the Tiete and near Sta. Anna."
18. 6. 27. = **306.** Near S. Paulo.
22. 3. 28. = **307.** Near Goyaz.
1. 4. 28. = **308.** „ „
19. 4. 28. = **309.** „ „
Bz. 30. 4. 28. = **310.** Near Goyaz.
Bz. 12. 6. 28. = **311.** „ „
Bz. 1303. I. + 4. 2. 29. = **312.** Porto Real [Nacional]. "*Papilio.* Caught in the back yard, and perhaps only a weather-worn variety."
5. 2. 29. = **313.** Porto Real [Nacional].
Bz. 6. 3. 29. = **314.** Porto Real [Nacional].
Bz. 9. 3. 29. = **315.** „ „
15. 3. 29. = **316.** „ „
Bz. + 17. 3. 29. = **317.** „ „
Bz. + 9. 4. 29. = **318.** „ „
22. 4. 29. = **319.** Porto Real [Nacional]. "Various" [? places].
Bz. + 19. 5. 29. = **320.** On R. Tocantins. R. Araguay.
26. 5. 29. = **321.** R. Tocantins, N. of Itaboca. Near Falls of Guariba.
26. 6. 29. 2 = **322, 323.** Pará. "Near my house (Pomba Roçinha)." Brazilian date and later copy on **323.**
6. 7. 29. = **324.** Pará.
27. 7. 29. = **325.** „
10. 9. 29. = **326.** Pará, S. José.
17. 10. 29. = **327.** „ „
8. 11. 29. 2 = **328, 329.** Pará, South of S. José.
15. 11. 29. = **330.** Pará, S, José. "Caminho de Chamonte."
8. 12. 29. = **331.** Pará, S. José. "Suburbanæ."

Westwood's list agrees in a remarkable manner with this long series of specimens. He separated the individuals into four sets (unnamed), apparently influenced by the development of the eye-spots upon the underside. The only difference is the substitution in his list of 22. 4. 28 for 22. 4. 29, probably a mistake in copying, and the omission of **297.** The latter was probably included with the individuals of *liturata.*

Euptychia quantius, Godt.

9. 2. 26. ♂ = **332.** Organ Mountains. "By the River Pacaqué."

This specimen has been submitted to Dr. F. D. Godman, who considers that the species is probably *quantius*.

Westwood's list agrees.

Euptychia renata, Cram.

27. 8. 28. ♂ = **333.** Near Jaragua. Goiaveira. "All these Lepidoptera were caught at the ford of the rivulet at Goiaveira, at 5 P.M."

26. 5. 29. ♀ = **334.** On R. Tocantins. (As **321.**) "Silva."

Westwood's list agrees, except that 26. 8. 29 is substituted for 26. 5. 29, probably a copyist's error.

Euptychia marmorata, Butl.

Bz. + 14. 2. 26. = **335.** Organ Mountains. Near R. Pacaqué.

13. 4. 27. = **336.** Near S. Paulo.

Bz. 10. 5. 27. = **337.** Near S. Paulo. "About the Tiete and near Sta. Anna."

14. 6. 27. = **338.** Near S. Paulo.

Westwood's list agrees.

Euptyche libye.

31. 5. 29. = **339.** R. Tocantins. Baião. "P.[M.]."

17. 9. 29. = **340.** Pará, S. José.

17. 11. 29. 2 = **341, 342.** Pará, S. José.

7. 1. 30. = **343.** Pará.

Westwood's list agrees, except for an additional specimen captured 10. 8. 29 (Pará).

Taygetis valentina, Cram., form *euptychidia*, Butl.

12. 5. 28. = **344.** Goyaz. "Caught in the woodhouse."

We owe this determination to the kindness of Mr. F. A. Heron.

In Westwood's list 15. 5. 28 is substituted for 12. 5. 28. The words "Caught in the woodhouse" are present, proving that the discrepancy is merely a copyist's error.

Taygetis Andromeda, Cram.

9. 3. 26. = **345.** Rio de Janeiro.

Bz. 10. 3. 26. = **346.** Rio de Janeiro.
Bz. 19. 3. 26. = **347.** " "In the Valley of Catombí."

Westwood's list agrees. **346** was separated as another form.

Taygetis virgilia, Cram.

Bz. *197*. *I*. 8. 9. 25. = **348.** Rio de Janeiro. Along the Aqueduct. "*Papilio.* In sylvâ; in crepusculo volitans."
10. 3. 26. = **349** (Pl. VI. fig. 12; Burchell's manuscript label is reproduced below the figure). Rio de Janeiro.
Bz. *1054*. *II*. 17. 3. 26. = **350.** Rio de Janeiro. (As **216, 217.**) "Both these Papiliones were caught in the forest down the hill." The Brazilian number and later copy without date on **350.**
1248.+ 7. 9. 28. 2= **351, 352** (fig. 11; Burchell's reference number and date are reproduced to the right of the figure). Between Jaragua and Cavalcanti; near Rio Maranhão. Fe Guárda Môr. "At twilight in deep shady wood, where we slept this night. Has a hovering motion and settles on the ground. P.M." Brazilian label and later copy on **351.**

Westwood's list agrees. He separated out **351, 352,** evidently on account of the character described below.

The Burchell specimens from Rio Maranhão (**351** and **352**) show a rufous border on hind wing altogether absent from the long series of this species in the Hope Collection. This character becomes common in Central America. Thus we read in the Rhopalocera of the 'Biologia Centrali-Americana' (vol. i. p. 97):—"The rufous margin, however, is more commonly seen in specimens from northern localities." The occurrence of the character in a pronounced form in both specimens from a locality near the opposite end of the range of the species may therefore indicate a local change or replacement of form in seventy-five years. It is much to be hoped that a traveller who has the opportunity of retraversing this part of Burchell's route may enable us to compare the two 1828 specimens with a good series from the same locality.

The striking difference as regards the hind marginal border of the hind wings between **351, 352,** and the specimens from Rio (**348–350**) is well shown in figs. 11 and 12 on Plate VI.

Taygetis echo, Cram.

Bz. 16. 4. 28. = **353.** Goyaz. "Morro de Canta Gallo." "In horto proprio."

Compared with Godman-Salvin Coll. (6 L. Amazons, 1 N. Brazil, 1 no locality.) The Burchell specimen has a broader brighter yellow band on fore wing than these, or six Hope Coll. specimens (not Brazilian).

Westwood's list agrees.

Pedaliodes phanias, Hew.

9. 2. 26. ♂ = **354.** Organ Mountains. "By the River Pacaqué."

Westwood's list agrees.

In addition to the individuals which Westwood's list shows to be missing from certain of the above-mentioned species, three small categories separated out in the list have not been traced at all. They are as follows:—

Hipparchia V. Two individuals—14. 6. 27 and *1399*. 24. 7. 29.

" XXVII. One individual—27. 8. 28.

" XXXV. Four individuals—*118*. 15. 7. 25, one without data, and the two following, which are certainly erroneous: *137*, shown by the note-book to be a *Cicada*; *153*, which is similarly found to be a *Cassida*.

EXPLANATION OF PLATE VI.

The Plate has been printed from a half-tone block prepared from a beautiful photograph of the actual specimens taken in the Oxford University Museum by Mr. Alfred Robinson. All the figures are the natural size.

Fig. 1. *Leucothyris phenomoe*, Dbl. & Hew., n. subsp. *Burchelli*. A representation of specimen **64**, the type of the subspecies. The heavier black markings which are characteristic of *Burchelli* as compared with *phenomoe* are at once apparent when figs. 1 and 2 are contrasted with 3 and 4. Burchell's label, written in England, is reproduced to the right of the figure.

Fig. 2. Another example of the form shown in fig. 1. A representation of **65**. Burchell's label, written in England, is reproduced to the right of the figure.

Figs. 3 & 4. Two examples of *Leucothyris phenomoe*, Dbl. & Hew. Representations of specimens **60** and **61** respectively. Burchell's labels, written in England, are reproduced to the right of the figures to which they respectively refer.

Fig. 5. *Dircenna dero*, Hübn. A representation of specimen **74**. The black markings are far less heavy than in figs. 6 and 7. On the other hand, it must be remembered that **74** is a male, while **68** and **72**, the specimens represented in figs. 6 and 7, are females. **74** is also more worn than the other two, and this tends to diminish the depth of the black markings. But, making all allowances, **74** must always have been much less heavily marked than **68** and **72**. Burchell's label, written in England, is reproduced to the right of the figure.

Fig. 6. *Dircenna dero*, Hübn., form *rhoëo*, Feld. A representation of specimen **68**. H. W. Bates believed that this form is replaced by typical *dero* in S.E. Brazil, and yet six out of Burchell's eight specimens from this very locality are *rhoëo*. Burchell's label, written in Brazil, is reproduced to the right of the figure.

Fig. 7. *Dircenna dero*. Hübn., form *rhoëo*, Feld. A representation of specimen **72**, another heavily marked form, although the median nervures of the hind wing are much less suffused with black than in the specimen shown in fig. 6, which is peculiar in this respect among all Burchell's captures. Burchell's label, written in England, is reproduced to the right of the figure. The figure appears to represent a butterfly with shorter broader wings than those of the originals of figs. 5 and 6. This is merely the effect of fore-shortening, the wings of the former having drooped after resetting. The obvious difference in the figures is a convincing demonstration of the false impression of form conveyed by the old British mode of setting with sloping wings.

Fig. 8. *Euptychia* sp. A representation of specimen **259**. Burchell's label, written in England, is reproduced to the right of and below the figure.

Fig. 9. *Euptychia electra*, Butl. A representation of the underside of specimen **261**. The four small submarginal ocelli on the fore wing, which are so distinctly shown in the figure, are obsolete in the type of *electra*, from Bahia. Burchell's two labels are reproduced to the right of and rather below the figure. The lower number, which is really on a separate label, was written in Brazil, the upper number and the date in England.

Fig. 10. *Euptychia electra*, Butl. A representation of the upperside of specimen **262**. Burchell's two labels are reproduced to the right of the figure. They were written as described in fig. 9.

Fig. 11. *Taygetis virgilia*, Cram. A representation of specimen **352**. The label, written by Burchell in England, is reproduced on the right side. The rufous hind marginal border of the hind wings is well indicated. This feature, which is characteristic of Central-American specimens, is here found in both of Burchell's captures (7. 9. 28) from the Maranhão River, to the N.E. of Goyaz.

Fig. 12. *Taygetis virgilia*, Cram. A representation of specimen **349**. The label, written by Burchell in England, is reproduced below the figure. The pale brown border of the hind wings is seen to be very different from that of fig. 11. The appearance here shown is common to all three specimens from Rio (**348**-**350**), just as that of fig. 11 is common to the two from the Rio Maranhão.